

Serial No.: 10/817,209
Reply to Office Action of: March 21, 2008
Reply Filed: Monday, June 23, 2008

Attorney Docket No.: A2003010(2)
F&R Docket No.: 17881-037001

REMARKS

In response to the Office Action mailed March 21, 2008, and in view of the forgoing amendments and following remarks, reconsideration is requested. Claims 1-22 are pending in the application of which claims 1, 3, 6, 9-12, 14, 17 and 20-22 are independent. Claims 1, 3, 6, 9-12, 14, 17 and 20-22 have been amended.

Rejections under 35 U.S.C. §112, second paragraph

Claims 1-3 were rejected under 35 U.S.C. §112, 2nd paragraph. The Office Action contends that "[i]n claims 1-3, references [sic] is made to 'data' in claim 1, line 7, however, it is not clear if reference is being made to the data stored on a computer readable medium or if the data is referred to image data. Correction is required."

The Applicant has amended claims 1-3 to provide clarifying labels for each instance of the word "data" in the claims. Accordingly, the Applicant requests that the rejection be withdrawn..

Rejections under 35 U.S.C. §112, first paragraph

Claims 1-22 were rejected under 35 U.S.C. §112, 1st paragraph.

The Office Action states:

"[M]ultiple lines are divided into a macroblock. However, it is not clearly taught specifically how the division is to take place. Is the division by an integer or a fraction? It is not clear if the band is divided into a number of macroblocks or are all of the bands of a single image stored in a macroblock?"

Because the claims do not make reference to any sort of "division," the Applicant does not believe this question to be relevant to the claims. However, the specification contains an obvious typographical error: multiple lines are divided into "a macroblock" should read "a set of macroblocks". Page 5, second paragraph. Clearly, a division of a band into macroblocks would result in two or more macroblocks. Note that the

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immediately following sentence says that "the set of macroblocks that define a band are called a macroblock rasterscan." See same paragraph. See also Fig. 6. Moreover, the data structures shown in Figs. 1-6 make it clear that a rasterscan includes several macroblocks (see Fig. 3) and that a rasterscan is defined by a number of lines (Fig. 6). Because the specification describes a data structure that specifies a number of lines for each band and a number of macroblocks from that band of lines, the specification is clearly enabling. The questions of whether the division is by a fraction or whether all of the bands of a single image are stored in one macroblock are not applicable in view of these portions of the specification.

The Office Action also states:

"The specification refers to "padding" as a process for terminating data on a boundary. But what is the boundary? Is it a boundary of the band, of a specific line in the band, or is it in the macroblock? It is not clear what is meant by boundary since it could have several interpretations.

Figs. 1-3 illustrate the relationship between a rasterscan, macroblock rasterscan, and padding. Further, page 5, 3rd paragraph states that "[t]he raster scan data is defined by an raster scan header 30, which references encoded data for macroblocks, as shown by 32, 34, 36 and 38, for a band of lines in the image. The encoded data for the macroblocks is followed by padding 39. The padding ensures that data for each macroblock rasterscan terminates on a data boundary. This data boundary depends on the amount of data that permits efficient access by a processor, for example, but not limited to 4096 (4K) bytes." Still further, Page 8, 3rd paragraph states that "[t]he writing process involves, for each image scan, initializing (90) the data structures for the picture header, image frame descriptor and the image scan index. The number of entries, the number of lines per macroblock rasterscan and the size of the image scan index can be known and set in these data structures before compression of the image begins. As each macroblock is compressed and written into the image scan bitstream, the offset of the first macroblock of the first macroblock rasterscan is stored (92) as an entry in the image scan index. The sizes of the macroblocks are accumulated (94) for all macroblocks in the macroblock rasterscan. After all macroblocks in the macroblock rasterscan have been written, the

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accumulated size is rounded (96) up to the nearest data boundary (for example, a multiple of 4096 or 4K). The difference between the accumulated size and the rounded size is an amount of padding added (98) to the end of the data for the macroblock rasterscan that is written into the bitstream of the image scan. Steps 92 through 98 are repeated, as indicated at 100, for each macroblock rasterscan in the image.” [Emphasis added.] In other words, the “boundary” represents the desired size of the encoded data which determines the amount of padding added to follow the encoded data. Thus, the boundary is a data boundary, or size of the data. In view of the specification as noted above, the questions of whether the boundary is a boundary of the band, of a specific line in the band, or in the macroblock, are not applicable.

The Office Action also states:

“Claims 12-19 and 22 refer to “[set of] macroblocks including a plurality of macroblocks...” This is confusing for the reason the specification, at page 5, second para. Lines 5-6 the set of macroblocks that define a band is called herein a macroblock rasterscan. There does not appear to be a teaching for what is claimed. (emphasis added)”

Applicant respectfully disagrees. In claims 12-19 and 22, the term “set of macroblocks” is used, and not “macroblock rasterscan.” As noted by the Examiner, a “macroblock rasterscan” is the set of macroblocks that define a band of lines. Therefore, the specification teaches a “set of macroblocks,” and that this set includes a plurality of macroblocks. Moreover, the phrase “set of macroblocks” is explicitly used in page 5, paragraph 2.

The Office Action also states:

“Claims 1-22 either refer to a band of lines followed by padding or macroblocks followed by padding, however, the specification seems to support that padding occurs after a coding result of the rasterized macroblock. It appears that the claim is reciting the limitation which is not in support for that provided in the specification.”

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The Applicant believes that the Examiner misread the claims. Nonetheless, the Applicant has amended the claims to clarify that the rasterscan data includes both macroblock data and padding.

Because the Applicant has addressed all of the questions raised by the Examiner that question the adequacy of the disclosure, it is respectfully submitted that the rejection of the claims under 35 U.S.C. 112, first paragraph, has been overcome. Accordingly, the Applicant requests that the rejection be withdrawn.

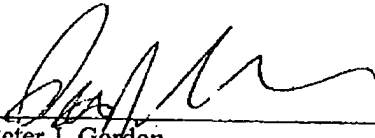
CONCLUSION

In view of the foregoing remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this reply, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, please charge any fee to Deposit Account No. 50-0876.

Respectfully submitted,

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